

AMENDMENTS TO THE CLAIMS

Please amend claims 10 and 12, cancel claim 32, and add new claims 55-67 as indicated below. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-9 (Canceled)

Claim 10 (Currently Amended): A monitoring device for monitoring at least one physiological parameter at an attachment site in a body, comprising:

 a housing, having a tissue attachment surface;

 a pin-securing structure which is movable from a retracted position to allow the tissue attachment surface to be brought into contact with tissue at a preselected attachment site, and an extended position in which it extends through tissue in contact with the attachment surface; and

 at least one physiological parameter detector carried by the housing.

Claim 11 (Original): A monitoring device as in Claim 10, further comprising a concavity on the housing such that the tissue attachment surface is on a surface of the concavity.

Claim 12 (Currently Amended): A monitoring device as in Claim 10, wherein the pin-securing structure comprises a bioabsorbable material.

Claim 13 (Original): A monitoring device as in Claim 11, further comprising a lumen in communication with the concavity, for connection to a vacuum to draw tissue into the concavity.

Claim 14 (Original): A monitoring device as in Claim 10, wherein the physiological parameter detector comprises a pH detector.

Claim 15 (Original): A monitoring device as in Claim 10, further comprising an RF transmitter for transmitting data generated by the physiological parameter detector.

Claim 16 (Original): A monitoring device as in Claim 10, further comprising an electrical contact for contacting tissue in the body and transmitting data relating to the physiological parameter through the tissue.

Claims 17-54 (Canceled)

Claim 55 (New): A monitoring device as in Claim 10, wherein the securing structure comprises a pin.

Claim 56 (New): A monitoring device as in Claim 11, wherein the securing structure extends at least part way across the concavity when in the extended position.

Claim 57 (New): A monitoring device as in Claim 11, wherein the securing structure includes a distal end, and the concavity includes a blind end to receive the distal end of the securing structure when the securing structure is in the extended position.

Claim 58 (New): A monitoring device as in Claim 57, wherein the blind end includes a locking structure to retain the securing structure in the extended position.

Claim 59 (New): A monitoring device as in Claim 11, further comprising a window that permits visualization of the interior of the concavity through the housing.

Claim 60 (New): A monitoring device as in Claim 59, wherein the window comprises a transparent wall of the housing.

Claim 61 (New): A monitoring device as in Claim 10, wherein the preselected attachment site is an esophagus.

Claim 62 (New): A monitoring device as in Claim 10, wherein the housing includes a docking structure that permits removable attachment of the monitoring device to an introduction instrument that introduces the monitoring device to the preselected attachment site.

Claim 63 (New): A monitoring device as in Claim 62, wherein the docking structure comprises at least one of a threaded aperture, a projection, a lumen, and a recess.

Claim 64 (New): A monitoring device as in Claim 14, wherein the pH detector comprises one of an ion sensitive field effect transistor (ISFET) and an antimony electrode.

Claim 65 (New): A monitoring device for monitoring at least one physiological parameter at an attachment site in a body, comprising:

- a housing, having a tissue attachment surface;
- a securing structure;
- a concavity on the housing such that the tissue attachment surface is on a surface of the concavity;
- a lumen in communication with the concavity, for connection to a vacuum to draw tissue into the concavity to engage the securing structure; and
- at least one physiological parameter detector carried by the housing.

Claim 66 (New): A monitoring device as in Claim 65, wherein the securing structure comprises a pin that is movable from a retracted position to allow the tissue attachment surface to be brought into contact with the tissue, and an extended position in which it extends through the tissue in contact with the attachment surface.

Claim 67 (New): A monitoring device as in Claim 65, wherein the securing structure comprises a bioabsorbable material.

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIGS. 13 and 14. The sheet, which includes FIGS. 13 and 14, replaces the original sheet including FIGS. 13 and 14. The attached sheet of drawings adds reference numerals to FIGS. 13 and 14 that are mentioned in the specification, namely reference numerals 168, 172, 184, 188 and 190. The attached sheet of drawings makes the same changes to FIGS. 13 and 14 of the present application as made to FIGS. 13 and 14 during prosecution of the parent application, Application Serial No. 09/544,373.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes